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Glu Thr Leu Ser Arg Asn Leu Glu Leu Gly Leu Thr Gln Gly Ser Phe 20 25 30

Ala Phe Ile His Lys Asp Phe Asp Val Lys Glu Thr Phe Phe Asn Leu 35 40 45

Ser Lys Arg Tyr Phe Asp Thr Glu Cys Val Pro Met Asn Phe Arg Asn 50 55 60

Ala Ser Gln Ala Lys Arg Leu Met Asn His Tyr Ile Asn Lys Glu Thr 65 70 75 80

Arg Gly Lys Ile Pro Lys Leu Phe Asp Glu Ile Asn Pro Glu Thr Lys  $\phantom{0}85\phantom{0}$  85  $\phantom{0}90\phantom{0}$  95

Leu Ile Leu Val Asp Tyr Ile Leu Phe Lys Gly Lys Trp Leu Thr Pro  $100 \hspace{1.5cm} 105 \hspace{1.5cm} 110 \hspace{1.5cm}$ 

Phe Asp Pro Val Phe Thr Glu Val Asp Thr Phe His Leu Asp Lys Tyr 115 120 125

Lys Thr Ile Lys Val Pro Met Met Tyr Ser Ala Gly Lys Phe Ala Ser 130 140

Thr Phe Asp Lys Asn Phe Arg Cys His Val Leu Lys Leu Pro Tyr Gln 145 150 155 160

Gly Asn Ala Thr Met Leu Val Val Leu Met Glu Lys Met Gly Asp His  $165 \hspace{1.5cm} 170 \hspace{1.5cm} 175$ 

Leu Ala Leu Glu Asp Tyr Leu Thr Thr Asp Leu Val Glu Thr Trp Leu 180 \$185\$

Arg Asn Met Lys Thr Arg Asn Met Glu Val Phe Phe Pro Lys Phe Lys 195 200 205

Leu Asp Gln Lys Tyr Glu Met His Glu Leu Leu Arg Gln Met Gly Ile 210 215 220

Arg Arg Ile Phe Ser Pro Phe Ala Asp Leu Ser Glu Leu Ser Ala Thr 225  $\phantom{\bigg|}230\phantom{\bigg|}230\phantom{\bigg|}235\phantom{\bigg|}$ 

Gly Arg Asn Leu Gln Val Ser Arg Val Leu Gln Arg Thr Val Ile Glu 245 250 255

Val Asp Glu Arg Gly Thr Glu Ala Val Ala Gly Ile Leu Ser Glu Ile 260 265 270

Thr Ala Tyr Ser Met Pro Pro Val Ile Lys Val Asp Arg Pro Phe His

Phe Met Ile Tyr Glu Glu Thr Ser Gly Met Leu Leu Phe Leu Gly Arg 290 295 300

Val Val Asn Pro Thr Leu Leu 305 310

<210> 7

<211> 215

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (211)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 7
His Glu Leu Arg Ser Trp Ala Ala Ala Arg Arg Thr Gly Ala His Arg
1 5 10 15

His Gly Cys Ser Ile Arg Ser Lys Trp His Ile Cys Ile Lys Pro Phe \$20\$

Glu Lys Ala Arg Gly Lys Gln Leu Lys Gln Leu Ile Phe Phe Pro Met  $35 \ \ 40 \ \ 45$ 

Ser Ile Ser Ser Ala Leu Ala Met Val Phe Met Gly Ala Lys Gly Asn 50 55 60

Thr Ala Ala Gln Met Ser Gln Ala Leu Cys Phe Ser Lys Ile Gly Gly 65 70 75 80

Glu Asp Gly Asp Ile His Arg Gly Phe Gln Ser Leu Leu Val Ala Ile 85  $90\,$  95

Asn Arg Thr Asp Thr Glu Tyr Val Leu Arg Thr Ala Asn Gly Leu Phe 100 105 110

Gly Glu Lys Ser Tyr Asp Phe Leu Thr Gly Phe Thr Asp Ser Cys Gly 115 120 125

Lys Phe Tyr Gln Ala Thr Ile Lys Gln Leu Asp Phe Val Asn Asp Thr 130 135 140

Glu Lys Ser Thr Thr Arg Val Asn Ser Trp Val Ala Asp Lys Thr Lys 145 150 155 160

Ala Trp Lys Ile Ile Gln Thr Ser Leu Ser His Leu Glu Glu Pro Gly

Ile Ala Ser Ser Ser Cys Tyr Cys Lys Ala Cys Leu Ser Gln Pro Leu 180 185 190

Leu Val His Ser Ile Pro Lys Cys Asn Ser Pro Val Thr Pro His Gly
195 200 205

Met Trp Xaa Pro Pro Ser Leu

<210> 8 <211> 201

<211> 201 <212> PRT

<213> Homo sapiens

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<222> (32)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (33)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (197)
<223> Xaa equals any of the naturally occurring L-amino acids

. . . .

Met Asp Ala Leu Ser Glu Ala Asn Gly Thr Phe Ala Leu Asn Leu Leu 1 5 10 15

Lys Lys Leu Gly Glu Asn Asn Ser Asn Asn Leu Phe Phe Ser Pro Xaa 20 25 30

Xaa Met Ser Ile Ser Ser Ala Leu Ala Met Val Phe Met Gly Ala Lys

Gly Asn Thr Ala Ala Gln Met Ser Gln Ala Leu Cys Phe Ser Lys Ile 50 55 60

Gly Gly Glu Asp Gly Asp Ile His Arg Gly Phe Gln Ser Leu Leu Val 65 70 75 80

Ala Ile Asn Arg Thr Asp Thr Glu Tyr Val Leu Arg Thr Ala Asn Gly 85 90 95

Leu Phe Gly Glu Lys Ser Tyr Asp Phe Leu Thr Gly Phe Thr Asp Ser 100 105 110

Cys Gly Lys Phe Tyr Gln Ala Thr Ile Lys Gln Leu Asp Phe Val Asn 115  $$\rm 120$$  125

Asp Thr Glu Lys Ser Thr Thr Arg Val Asn Ser Trp Val Ala Asp Lys

TOTALLO LINE

Thr Lys Ala Trp Lys Ile Ile Gln Thr Ser Leu Ser His Leu Glu Glu 145 150 155 160

Pro Gly Ile Ala Ser Ser Ser Cys Tyr Cys Lys Ala Cys Leu Ser Gln 165 170 175

His Gly Met Trp Xaa Pro Pro Ser Leu 195 200

<210> 9

<211> 41

<212> PRT

<213> Homo sapiens

<220>

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<221> SITE

<222> (32)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (33)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 9

Met Asp Ala Leu Ser Glu Ala Asn Gly Thr Phe Ala Leu Asn Leu Leu 1 5 10 15 Lys Lys Leu Gly Glu Asn Asn Ser Asn Asn Leu Phe Phe Ser Pro Xaa

40

Xaa Met Ser Ile Ser Ser Ala Leu Ala

35

<210> 10

<211> 39

<212> PRT <213> Homo sapiens

<400> 10

Met Val Phe Met Gly Ala Lys Gly Asn Thr Ala Ala Gln Met Ser Gln 1 15

Ala Leu Cys Phe Ser Lys Ile Gly Gly Glu Asp Gly Asp Ile His Arg

Gly Phe Gln Ser Leu Leu Val

<210> 11

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DOGLESTO DINGE
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<211> 42
<212> PRT
<213> Homo sapiens
<400> 11
Ala Ile Asn Arg Thr Asp Thr Glu Tyr Val Leu Arg Thr Ala Asn Gly
 1
                  5
                                     10
Leu Phe Gly Glu Lys Ser Tyr Asp Phe Leu Thr Gly Phe Thr Asp Ser
Cys Gly Lys Phe Tyr Gln Ala Thr Ile Lys
         35
<210> 12
<211> 38
<212> PRT
<213> Homo sapiens
<400> 12
Gln Leu Asp Phe Val Asn Asp Thr Glu Lys Ser Thr Thr Arg Val Asn
Ser Trp Val Ala Asp Lys Thr Lys Ala Trp Lys Ile Ile Gln Thr Ser
                                 25
Leu Ser His Leu Glu Glu
        35
<210> 13
<211> 41
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (37)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 13
Pro Gly Ile Ala Ser Ser Ser Cys Tyr Cys Lys Ala Cys Leu Ser Gln
Pro Leu Leu Val His Ser Ile Pro Lys Cys Asn Ser Pro Val Thr Pro
His Gly Met Trp Xaa Pro Pro Ser Leu
        35
<210> 14
<211> 599
<212> DNA
<213> Homo sapiens
<220>
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120

180

240

300

360

420

480

540

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<221> SITE
<222> (585)
<223> n equals a,t,g, or c
<400> 14
atggatgete tateagaage aaatggeaca tittgeattaa acettitgaa aaagetaggg
qaaaacaact caaacaactt attititicc cccatqaqca tatcatcaqc cttqqccatq
gttttcatgg gggcaaaggg aaacactgca getcagatgt etcaggcact ttgttttagt
aaaatcqqaq qtqaaqatqq aqatattcat cqaqqttttc aqtcacttct tqttqcaatt
aacagaactg acactgaata tqtqcttaqa actqccaacg qqctctttqq agaaaagtct
tatgatttcc tcacaggttt tacagattcc tgtggcaaat tctaccaagc aacgataaaa
cagctagact ttgtgaatga tacagagaag tccacaacac gtgtaaactc ctgggttgct
gataaaacta aagcotggaa aattattoaa acaagcotgt cacatotgga ggagcoagga
atogoctott cetettgtta etgcaaagee tgeettteac ageccetact ggtteactet
atteceaaat geaactetee tgtgaceeg catggeatgt ggtgneetee etecetgtg
<210> 15
<211> 199
<212> PRT
<213> Homo sapiens
<220>
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Met Asp Ala Leu Ser Glu Ala Asn Gly Thr Phe Ala Leu Asn Leu Leu
Lys Lys Leu Gly Glu Asn Asn Ser Asn Asn Leu Phe Phe Ser Pro Met
                                 25
Ser Ile Ser Ser Ala Leu Ala Met Val Phe Met Gly Ala Lys Gly Asn
                             40
Thr Ala Ala Gln Met Ser Gln Ala Leu Cys Phe Ser Lys Ile Gly Gly
Glu Asp Gly Asp Ile His Arg Gly Phe Gln Ser Leu Leu Val Ala Ile
Asn Arg Thr Asp Thr Glu Tyr Val Leu Arg Thr Ala Asn Gly Leu Phe
Gly Glu Lys Ser Tyr Asp Phe Leu Thr Gly Phe Thr Asp Ser Cys Gly
Lys Phe Tyr Gln Ala Thr Ile Lys Gln Leu Asp Phe Val Asn Asp Thr
Glu Lys Ser Thr Thr Arg Val Asn Ser Trp Val Ala Asp Lys Thr Lys
    130
                        135
Ala Trp Lys Ile Ile Gln Thr Ser Leu Ser His Leu Glu Glu Pro Gly
145
                    150
                                        155
                                                            160
```

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Ile Ala Ser Ser Ser Cys Tyr Cys Lys Ala Cys Leu Ser Gln Pro Leu
Leu Val His Ser Ile Pro Lys Cys Asn Ser Pro Val Thr Pro His Gly
                                 185
Met Trp Xaa Pro Pro Ser Leu
        195
<210> 16
<211> 608
<212> DNA
<213> Homo sapiens
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<221> SITE
<222> (91)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (92)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (93)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (94)
<223> n equals a,t,q, or c
<220>
<221> SITE
<222> (95)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (96)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (97)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (98)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (99)
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180

240

300

360

420 480

540

600

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<223> n equals a,t,g, or c
<220×
<221> STTE
<222> (594)
<223> n equals a,t,g, or c
<400> 16
atggatgctc tatcagaagc aaatggcaca tttgcattaa accttttgaa aaagctaggg
qaaaacaact caaacaactt attttttcc nnnnnnnnnc ccatqagcat atcatcagcc
ttggccatgg ttttcatggg ggcaaaggga aacactgcag ctcagatgtc tcaggcactt
tqttttaqta aaatcqqaqq tqaaqatqqa qatattcatc qaqqttttca qtcacttctt
gttqcaatta acaqaactqa cactqaatat qtqcttaqaa ctqccaacqq qctctttgqa
gaaaagtett atgattteet cacaggtttt acagatteet gtggcaaatt etaccaagca
acgataaaac agctagactt tgtgaatgat acagagaagt ccacaacacg tgtaaactcc
tgggttgctg ataaaactaa agcctggaaa attattcaaa caagcctgtc acatctggag
qaqccagqaa tegeetette etettettae teeaaageet geettteaca geecetaete
gttcactcta ttcccaaatg caactctcct gtgaccccgc atggcatgtg gtgncctccc
tecetata
<210> 17
<211> 202
<212> PRT
<213> Homo sapiens
<220×
<221> SITE
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
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<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (33)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (198)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 17
Met Asp Ala Leu Ser Glu Ala Asn Gly Thr Phe Ala Leu Asn Leu Leu
 1
Lys Lys Leu Gly Glu Asn Asn Ser Asn Leu Phe Phe Ser Kaa Xaa
Xaa Pro Met Ser Ile Ser Ser Ala Leu Ala Met Val Phe Met Gly Ala
Lys Gly Asn Thr Ala Ala Gln Met Ser Gln Ala Leu Cys Phe Ser Lys
     50
```

% Ile Gly Gly Glu Asp Gly Asp Ile His Arg Gly Phe Gln Ser Leu Leu  $_{65}$   $\phantom{0}$  70  $\phantom{0}$  75

Val Ala Ile Asn Arg Thr Asp Thr Glu Tyr Val Leu Arg Thr Ala Asn 85 90 95

Gly Leu Phe Gly Glu Lys Ser Tyr Asp Phe Leu Thr Gly Phe Thr Asp  $100 \\ 100 \\ 110$ 

Ser Cys Gly Lys Phe Tyr Gln Ala Thr Ile Lys Gln Leu Asp Phe Val

Asn Asp Thr Glu Lys Ser Thr Thr Arg Val Asn Ser Trp Val Ala Asp 130 135 140

Lys Thr Lys Ala Trp Lys Ile Ile Gln Thr Ser Leu Ser His Leu Glu 145  $\phantom{\bigg|}$  150  $\phantom{\bigg|}$  155  $\phantom{\bigg|}$  160

Glu Pro Gly Ile Ala Ser Ser Ser Cys Tyr Cys Lys Ala Cys Leu Ser 165 170 175

Gln Pro Leu Leu Val His Ser Ile Pro Lys Cys Asn Ser Pro Val Thr 180 185 190

Pro His Gly Met Trp Xaa Pro Pro Ser Leu 195 200